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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,859	01/22/2007	Kazuhide Fujimoto	Q95835	2918

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EXAMINER	
LOEWE, ROBERT S	

ART UNIT	PAPER NUMBER
1796	

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01/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,859	FUJIMOTO ET AL.	
	Examiner	Art Unit	
	ROBERT LOEWE	1796	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/09 has been entered.

Response to Arguments

Applicant's arguments filed 12/17/08 have been fully considered. While the Examiner has agreed with the Applicants that Hirose et al. does not anticipate the molecular weight range of instant claim 1, such a range is nevertheless rendered obvious based on the prior art teachings of Hirose et al. While Hirose et al. does not explicitly employ oxyalkylene polymers which satisfy the molecular weight requirements in any working examples, the specification clearly teaches that oxyalkylene polymers having molecular weights of up to 30,000 may be employed. A prior art reference may be used for all that it teaches, including non-preferred embodiments. So while the Examiner has withdrawn the 102(b) rejection to Hirose et al., it still adequately qualifies as an obviousness-type reference in a 103(a) rejection which is cited below.

It should be noted that should Applicants rely solely on the working examples provided in the specification as evidence that the pressure sensitive adhesive compositions afford unexpected results, such results are insufficient to demonstrate the presence of unexpected results. Specifically, Applicants cite that the adhesive strength of comparative example 1 is only

one-sixth that of example 1 and attributes that to the reduction of the molecular weight. However, the amount of silane capping agent in comparative example 1 is 0.75 and in example 1 it is 0.6. Further, the amount of silane capping agent in comparative example 1 also falls outside the range of the instant claims. Therefore, no direct correlation can be made solely based on Applicants arguments that the molecular weight of the polyoxyalkylene is critical and careful selection of that molecular weight provides unexpectedly improved adhesive properties.

Further, it should be noted that production example 3 cannot be understood because gamma-aminoisocyanatopropyltrimethoxysilane is not a known silane. Either the compound is gamma-aminopropyltrimethoxysilane or it is gamma-isocyanatopropyltrimethoxysilane. Any results from production example 3 cannot be relied upon because it is unclear what the structure of the polymer is. Further, the amount of tackifier resin and the addition of solvent is not uniform between the working and comparative examples which makes direct comparisons between the physical properties of two samples very different.

Last, it is unclear to the Examiner how **all** of the unsaturated groups of the allyl-terminated polyoxypropylene glycol are reacted when employing **less** than a stoichiometric equivalent of silane (Si-H) groups of production example 1. Further, it is unclear to the Examiner how **all** of the hydroxyl groups of the hydroxy-terminated polyoxypropylene glycol are reacted when employing **less** than a stoichiometric equivalent of silane capping agent (assume isocyanatopropyltrimethoxysilane) groups of production example 3.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al. (US Pat. 4,463,115).

Claim 1: Hirose et al. teaches a composition comprising (A) an oxyalkylene polymer having a molecular weight up to 30,000 (3:5-6) and contains a hydrolyzable silyl group in each molecule (1:63-45), (B) a tackifier resin (3:21-29), and (C) a curing catalyst (3:47-62). Specifically, in regards to the ratio of equivalents of hydrolyzable silyl groups to the total amount of functional groups of the polymer precursor, reference example 3 of Hirose et al. shows a reaction of a polyoxypropylene diol with a silane-capping agent in such a manner as to yield a silyl-capped polypropylene ether having 55% of the end groups having silyl groups. Such an amount satisfies the limitation that between 0.3 and 0.7 equivalents of hydrolyzable silyl groups are present relative to the total amount of functional groups in the oxyalkylene polymer. While

the overlap in the molecular weight range taught by Hirose et al. and the molecular weight range which is claimed is not sufficient to warrant a case of anticipation, Hirose et al. nevertheless renders obvious the limitations of instant claim 1. A prior art reference may be relied upon for all that it teaches, including non-preferred embodiments. So while Hirose et al. does not explicitly teach any polymers having molecular weights which satisfy the limitations of instant claim 1, the teachings in the specification render obvious to a person having ordinary skill in the art polymers having a molecular weight of up to 30,000, which falls in the range of 20,000 to 50,000 of instant claim 1. The motivation to employ polymers having a molecular weight range which satisfies part of the range of instant claim 1 is rooted in the teaching of Hirose et al.

Claim 3: Hirose et al. teaches that the tackifier is present in amounts of from 10 to 140 parts by weight per 100 parts by weight of the polyether, which substantially overlaps the range of instant claim 3 (3:21-29).

Claims 4 and 7: Hirose et al. further teaches that the hydrolyzable group in the hydrolyzable silyl-group containing polymer (A) is represented by the formula (I) of instant claims 4 and 7 (2:20).

Claims 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al. (US Pat. 4,463,115) as applied to claim 1 above, and further in view of Ueda et al. (WO03/35755). For convenience, the English-language equivalent, US Pat. 7,144,953 will be relied upon.

Hirose et al. renders obvious the composition of instant claim 1, as described above. Hirose et al. further teaches that the tackifier is present from 10 to 140 parts by weight based on

100 parts by weight of polyether component (A) of instant claim 5 (3:21-29). Hirose et al. further teaches that the hydrolyzable group in the hydrolyzable silyl-group containing polymer (A) is represented by the formula (I) of instant claim 6 (2:20). Hirose et al. does not explicitly teach that the polydispersity of the polyether component (A) be no more than 1.6. However, Ueda et al. does teach employing silyl-terminated polyethers having polydispersities of less than 1.6 (3:60-65). Hirose et al. and Ueda et al. are combinable because they are from the same field of endeavor, namely, curable compositions comprising silyl-terminated polyethers. At the time of the invention, a person having ordinary skill in the art would have found it obvious to employ silyl-terminated polyethers having polydispersities less than 1.6, as taught by Ueda et al., into the compositions of Hirose et al. The skilled artisan would have been motivated to do so because Ueda et al. teaches that employment of polyethers having narrow polydispersities (i.e., less than 1.6) yields lower viscosity solutions which are easier to work with than those polyethers having higher polydispersities (3:65-4:3). Hirose et al. teaches pressure sensitive adhesives having little to no solvent (1:34-38). Hence, it would be beneficial, in the absence of solvents, to employ lower viscosity polyethers for better workability.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./
Examiner, Art Unit 1796
19-Jan-09

/Michael J Feely/
Primary Examiner, Art Unit 1796